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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/542,975

07/21/2005

Alastair J. Martin

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07/21/2010

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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EXAMINER

MCEVOY, THOMAS M

ART UNIT

PAPER NUMBER

3731

MAIL DATE

DELIVERY MODE

07/21/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,975	Applicant(s) MARTIN, ALASTAIR J.	
	Examiner THOMAS MCEVOY	Art Unit 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13, 16 and 19-27 is/are pending in the application.
- 4a) Of the above claim(s) 21-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13, 16, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 21-27 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: based on Applicant's remarks in the Appeal Brief filed November 19th 2009, the invention described in claim 21 can now be structurally understood (although not adequately described by the original disclosure as set forth by 35 U.S.C. 112) to represent a different species than the structures depicted in the drawings and previously acted upon.

Since applicant has received an action on the merits for the originally presented invention on 12/08/08, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 21-27 is withdrawn from consideration as being directed to a non-elected species. See 37 CFR 1.142(b) and MPEP § 821.03.

2. Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, other than to state that the claims differ in scope but do not represent distinct inventions, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 21-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

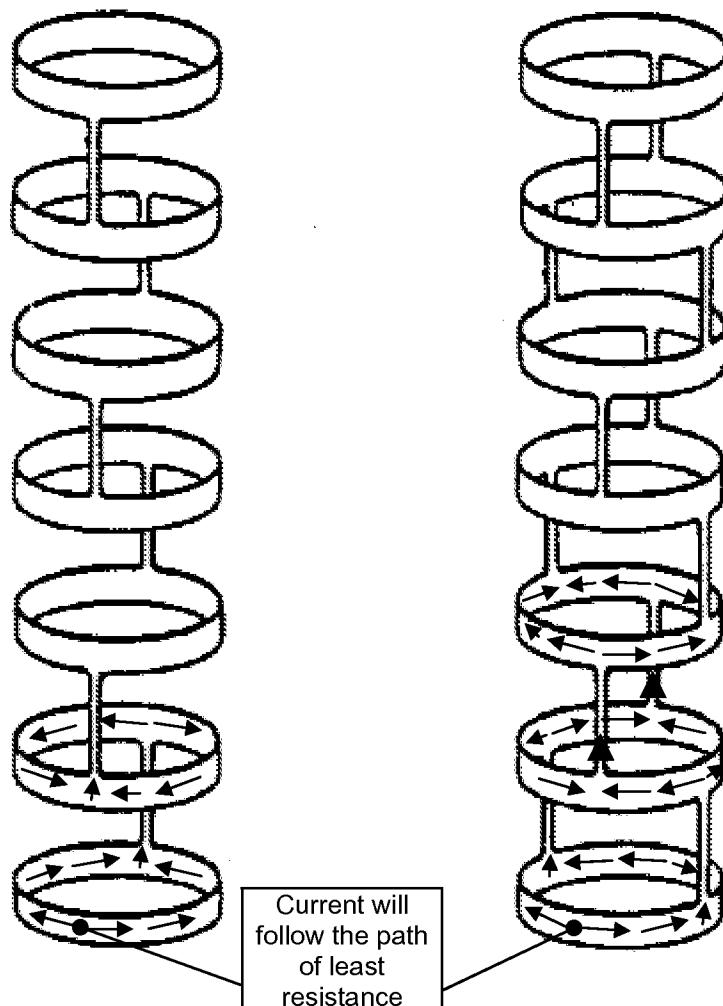
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 12, 16, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lau et al. (US 6,066,168) in view of Pacetti (US 2002/0188345).

Regarding claim 12, Lau et al. disclose a stent for use in intravascular therapy, the stent comprising: a plurality of electrically conductive elements arranged in a generally tubular structure, the conductive elements comprising generally diagonally arranged struts with respect to a central axis of the stent (Figures 1-3), the conductive elements comprising: a plurality of loops 12 disposed about a central axis of the stent; and a plurality of linking members 13 for joining the loops such that the loops and linking members form a generally tubular structure around the central axis of the stent. Lau et al. fail to disclose a plurality of non-conductive connector nodes as claimed. Pacetti discloses non-conductive connector nodes which minimize current loops (paragraph 0038; improvements in MRI imaging have been made at and shortly after the time of

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Pacetti's invention - see attached Notice of References Cited) flowing within a stent in order to enable better MRI imaging (Abstract, paragraphs 0033, 0035 and 0038). One of ordinary skill in the art would have recognized the benefit of this modification to the Lau et al. stent because it is well-known in the art to use MRI imaging when deploying stents of similar function and structure to those of Lau et al. Therefore, it would have been obvious to one of ordinary skill in the art to have placed the nodes of Pacetti anywhere throughout the stents of Lau et al. in order to minimize current loops flowing within the stent so that MRI imaging is enhanced. With this modification, the nodes would be disposed among the conductive elements and would direct (the nodes at least participate in directing the current along its normal path and would prevent shorts in their immediate vicinity) a current induced by RF signals in an examination region of a magnetic resonance apparatus to flow in the conductive elements such that adjacent segment currents cancel each other and a net current flowing in the stent is substantially minimized (see current flows [→] below; the currents within each loop would substantially cancel or minimize the currents in adjacent loops as evidenced by Applicant's disclosure):



The above combination would also result in the loops and linking members being connected (intra-connected or indirectly inter-connected) within the non-conductive connector nodes such that the current flowing through adjacent loops substantially cancel each other (as shown above). Regarding claim 16, when the undulations of the Lau et al. stent are offset as in Figure 11, they would form an overall diamond-shaped mesh pattern on the stent (when the stent is expanded) and each loop would have a

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zig-zag pattern. Regarding claim 19, in the Figure 8 embodiment of the Lau et al. stent each zig-zag loop is connected to each neighboring zig-zag loop only once and mechanically connected (to adjacent structures) at a plurality of locations – once on each side. Regarding claim 20, Lau et al. disclose that the connectors 13 connect neighboring loops at approximately 90 degree intervals (four connectors, col. 5, line 60) and disclose that in other embodiments the connectors are evenly spaced (Figures 8-10). Therefore, it would have been obvious to one of ordinary skill in the art to have distributed the four connectors evenly which would result in 90 degree intervals as claimed. Furthermore regarding claims 19 and 20, as can be seen in the drawings above, the current would flow in opposite directions in adjacent loops no matter how many connectors are used so long as the connectors are radially offset between adjacent loops as disclosed by Lau et al. (col. 5, lines 42-48).

Response to Arguments

6. Applicant's arguments filed May 7th 2010 have been considered but are not persuasive. Applicant has argued that Cheng and Morich do not disclose improved MRI imaging of stents. Examiner has cited those references to show that improvements to medical MRI imaging systems have been made near the time of the Pacetti filing. Examiner has provided an additional reference that shows improvements to MRI imaging of stents made since the Pacetti filing. Applicant has argued that it is not well-known to use MRI imaging for stents. Examiner has cited references which show MRI imaging of stents prior to Applicant's filing. Also, see the attached EAST search history which shows that the term MRI and stent are found within the same sentence over 133

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times prior to Applicant's filing. Applicant has argued that the discontinuities of Pacetti should only be placed in the stent of Lau et al. in only the exact orientation disclosed by Pacetti. Applicant has also argued that no loop currents would be formed when using the discontinuities of Pacetti because they block the formation of any loop current when disposed exactly as they are disposed within the Pacetti stent. Even if one only disposes the Pacetti discontinuities on the bands rather than the connectors, the currents would be produced and cancelled as claimed because the currents are only minimized by the discontinuities (yet still guided), not totally blocked, as specifically described above.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS MCEVOY whose telephone number is (571)270-5034. The examiner can normally be reached on M-F, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas McEvoy/
Examiner, Art Unit 3731

/Anhtuan T. Nguyen/
Supervisory Patent Examiner, Art Unit 3731
7/19/10